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Monthly Statistical Report

Prepared by the Finance, Accounting, and Statistics Department

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JULY 1987

SUMMARY

Imports in July reached the highest monthly level in over seven years. The result of continuing growth in demand, lower domestic production, and an above-average increase in inventories, the month's 7.6 million B/D of imports exceeded last August's recent-year record by half a million B/D.

Despite year-to-date delivery data indicating growth of only 1.7 percent (see page 2) we estimate that consumption is actually growing by slightly over 2 percent—roughly in line with July's deliveries increase of 2.5 percent or about 400 thousand B/D. Ongoing healthy growth for gasoline and for other oils was aided by distillate deliveries' second month of significant year-to-year increases, following stagnant deliveries earlier in the year. Residual fuel oil deliveries continued to be down compared with last year's fuel-switching-related surge, but were unusually strong in comparison to the recent declining trend. Excluding residual fuel oil's decrease, growth in deliveries for the remaining products was 3.8 percent, somewhat higher than the first-half increase of close to 3 percent.

While demand has continued to grow, domestic crude oil production has been slipping in the past several months—a reflection of crude oil prices that have still been substantially below levels of two years ago, despite some recovery so far this year. Based on data from member and nonmember companies and state agencies, July's estimated production was down almost 1 million B/D from the early part of last year.

Though higher demand and lower domestic production account for the largest part of July's recent-year record for imports, heightened tensions in the Persian Gulf and ready availability of crude and products have also contributed to the increase. During July, inventories rose by 27 million B/D, twice the average of the previous five years, but quite similar to last July's increase. Even so, stocks ended the month at a level towards the lower end of the range of July stocks of the past several years.

Spurred by growing demand, refinery utilization in July almost equalled last August's recent-year record. As in June, a shift of yields towards heavier products was apparent.

PRODUCTS SUPPLIED [1]

Gasoline

DELIVERIES STILL GROWING IN JULY. Deliveries of gasoline continued to move ahead in July at a rate greater than had been expected by many analysts earlier in the year, with the 2.4 percent, 180 thousand B/D increase for July closely in line with the average for the year to date. Though retail prices have risen close to 15 cents since last July, a reflection of crude oil costs that have risen at least as much, they still represent a positive influence on consumption when compared with those before last year's major price decline. In fact, on an inflation-adjusted basis, current prices are about the same as in the early 1970s before the Arab oil embargo, and on a cost-per-mile basis, roughly one fourth lower than at that time.

Unleaded's share of deliveries has remained near 75 percent for the past several months, despite the movement towards mid-grade unleaded and away from leaded regular by numerous refiners and marketers. This seeming slowdown in the penetration of unleaded, however, can be largely explained by seasonal patterns. Unleaded's share often shows slower growth in the first half of the year than in the second, perhaps due to geographic or usage differences between leaded and unleaded. Year to year, however, unleaded's share was up 5.7 percentage points for July, an increase still higher by more than a percentage point than 1986's annual gain.

Distillates

TRANSPORTATION USE MAY BE RECOVERING. In July, for the second month in a row, distillate deliveries rose strongly versus the year-ago period after relatively weak performance earlier in the year. Though the 5.1 percent, 133 thousand B/D increase is larger than the likely underlying trend of only slight growth in

API ESTIMATES

	JULY		YEAR-TO-DATE	
	Million B/D	Percent Change	Million B/D	Percent Change
Total domestic deliveries	16.7	2.5	16.4	1.7
Crude oil production[2]	8.2	(5.3)	8.3	(6.2)
otal imports[3]	7.6	10.7	6.2	7.7
Stocks (million bbl)[3]	1,057	(1.2)	na	na

MAY DATA ARE PUZZLING....

The year-to-date increase for total deliveries, shown in this month's estimated balance at 1.7 percent, is, we believe, less than the increase in demand and about half a percentage point lower than would have been calculated without the Department of Energy's recently-released data for May. Those data, particularly for residual fuel oil and for other oils, were significantly lower than API's estimates published in the May *Monthly*. The Department of Energy's figure for residual fuel oil deliveries, for example, was lower even than for May 1985, though indications are that fuel switching so far this year has not entirely reversed the strong increase of 1986. The May Department of Energy data for other oils was equally puzzling since it indicated a decrease in the deliveries of such products as petrochemical feedstocks, in the face of what appears to be quite strong demand.

The comparison of estimates is also clouded by the possibility of further revisions when the final data are released by the Department of Energy. Final 1986 data on deliveries of other oils, for example, included revisions for individual months as large as 200 thousand B/D. However, under the present revision policy, updated information on 1987 deliveries is nearly a year away, since the revised data are not due to be published until mid-1988.

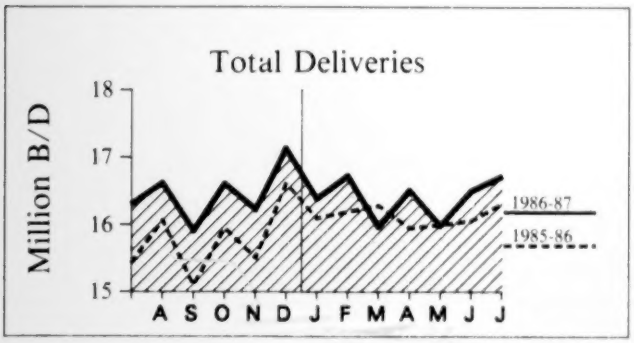
demand, transportation sector usage appears to have been strengthening. Manufacturing and trade shipments have been up about 4 percent so far this year, a gain reflected in June's 5 percent rise in truck traffic. Increased grain exports have been a major contributor to the recent rise in rail traffic, which rose about 8 percent year to year in July. Together, truck and rail usage accounted for roughly 50 to 60 thousand B/D of July's distillate increase. A partially offsetting decline in farm use due to reduced acreage and relatively stable demand in other sectors indicate that overall distillate consumption may be growing at somewhat better than 1 percent.

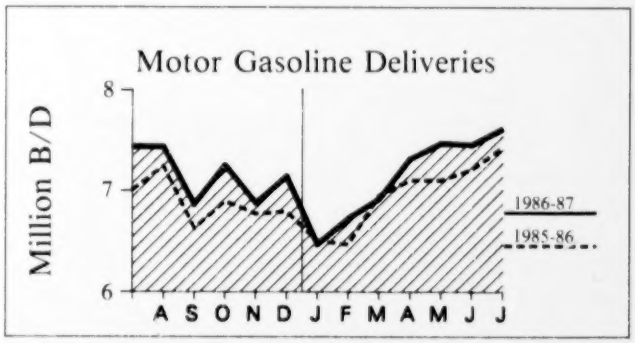
Residual Fuel Oil

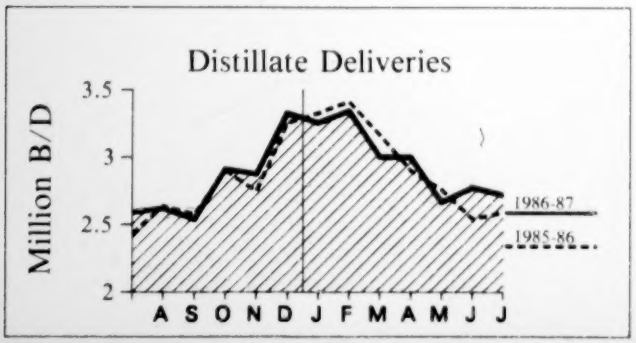
DECLINES FOR MAJOR SECTORS CONTINUE. Continuing its year-to-year decline against the fuel-switching-related strength of last year, residual fuel oil deliveries fell close to 10 percent or 150 thousand B/D versus last July. Though residual fuel oil deliveries rose substantially for much of last year, last July's increase had been particularly strong—up over 40 percent or about 450 thousand B/D. Thus, July deliveries this year were actually not as weak as it might first appear. Unusually hot weather on the East Coast during July—roughly 15 percent warmer than normal—kept the decline in electric utility usage from being larger. In fact, a significant portion of July's deliveries decline may be due to the combined effect of lower domestic bunkering purchases and declines in industrial and other consumption.

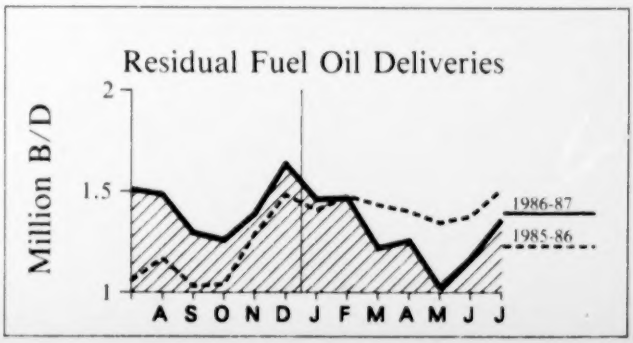
Kerosine Jet Fuel

SMALL DELIVERIES GAIN FALLS SHORT OF TRAFFIC GROWTH. Deliveries of kerosine jet fuel rose a minimal 0.7 percent for July, following a similarly small rise for June. Gains in air traffic have been lessening, with increases of 5 or 6 percent in recent months versus an increase in miles flown last year of almost 12 percent; this is despite a recovery in international traffic from last summer's slump. Though the reduced growth is not enough to account for kerosine jet fuel deliveries' recent weak performance, such discrepancies are not uncommon on a monthly basis and tend to average out over longer periods. For the year to date, miles flown are estimated to be up about 7 percent, so that year-to-date kerosine jet fuel deliveries' over 5 percent increase, though still not quite as large as indicated by traffic growth, is reasonably close.









Other Oils

CHEMICAL DEMAND PROPELS DELIVERIES. Products supplied in the other oils category for July are estimated to be 4,023 thousand B/D, an increase of 4.0 percent from July 1986. This rate of growth is in line with that of the first half of the year. Continued growth in the propane and naphtha markets accounts for much of the increase in this category.

Propane, having registered an estimated 12-15 percent increase over last year, has been able to recover much of the market share temporarily lost to naphtha in June. Naphtha had been last month's favored petrochemical feedstock as a result of the large, export-led increases in the demand for, and prices of, benzene, styrene, toluene and other related products. The continued decline in the value of the dollar as well as fast growth in key Pacific Basin economies have stimulated much of the export demand for these products, prompting large deliveries of naphtha to domestic petrochemical plants. The high naphtha prices, however, have begun to prompt a switch back to propane in July, but naphtha demand remains strong. As a result, strong increases in the joint demand for both of these petrochemical feedstocks has resulted in a growth rate of the "other oils" category twice as much as that for the major products.

Other products in this category have also contributed to the robust growth in this category. After almost one year of stagnant demand, butane has registered sizable increases in demand as a petrochemical feedstock, more than offsetting continued declines in the supply of (and demand for) ethane. In addition, refinery gas has increased an estimated 3 to 3.5 percent over levels of the previous year as a result of increased refinery output of gasoline.

SUPPLY [1/]

Production

DROP FROM EARLY 1986 APPROACHES 1 MILLION B/D. Domestic crude oil production, after remaining in a narrow range earlier in the year, appears to have returned to its previous downward trend in more recent months. Based on data collected from member and nonmember companies as well as from state agencies, July's production is estimated at 8.2 million B/D—down nearly 1 million B/D or over 10 percent from early 1986 and the lowest in ten years. Excluding production from Alaska, which accounted for nearly one fourth of July's output, crude oil production in the remaining states was at the lowest level since the 1950s.

Though drilling activity has increased in the past few months along with crude oil prices, the rise in drilling has hardly been large enough or long enough to have a major effect on crude oil production. July's rig count, for example, was still less than half of that of two years ago when production was holding relatively steady, and given the long lead times between exploration, drilling, and production—on the order of three to six years in some frontier regions or even longer—it can hardly be expected that any effect on production at this point would be significant.

Based on data from annual reports of major companies for 1986, at last year's drilling rates less than half of the crude oil produced was replaced by new reserves. Data on proved reserves in 1987 are unavailable, but, given current exploration levels, reserves have most likely continued to decline so far this year.

Imports

HIGHEST SINCE 1980. Petroleum imports reached the highest level in over seven years in July, rising 10.7 percent or 735 thousand B/D over last July's already high levels to 7.6 million B/D. Though the year-to-year increase is close to the combined rise in demand and drop-off in production, imports in both this July and last exceeded current consumption needs and what would be needed to fulfill typical inventory patterns, as increasing tensions in the Persian Gulf in the past two months have spurred greater buying interest.

Major products shared the increase in imports with crude oil. Gasoline and components were up 150 thousand B/D versus last July, with attractive price differentials between European versus U.S. product raising imports to 546 thousand B/D for the month. Distillate imports rose 82 thousand B/D and residual fuel oil 61 thousand B/D; for residual fuel oil, the increase represented a reversal of past months' declines, a result of above-trend demand during July.

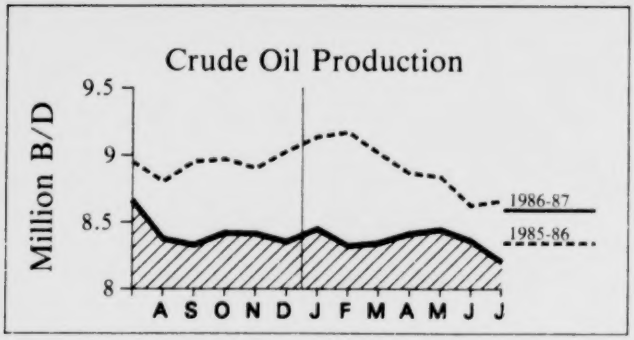
Refinery Operations

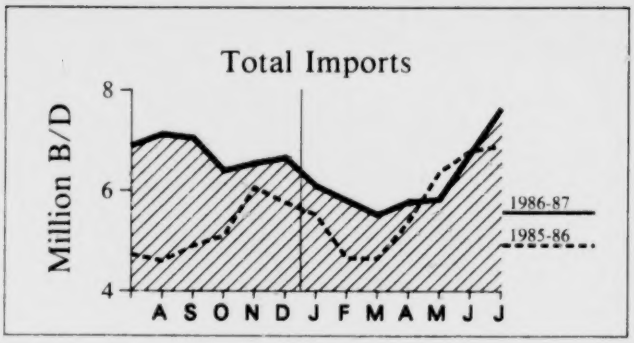
UTILIZATION RATE NEARLY EQUALS RECENT-YEAR RECORD. Propelled by growing demand, input to crude oil distillation units reached its highest level since 1980 in July. Utilization, at 86.7 percent of operable capacity, nearly matched last August's recent-year record, which was based on a slightly lower capacity figure than this July's. As in June, refinery production increases indicate a heavier crude slate than last year, with residual fuel oil output up over 6 percent but gasoline and distillate up a lesser 2 percent and half a percent, respectively.

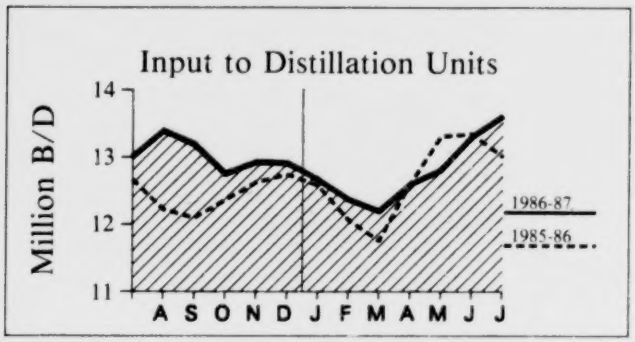
Inventories

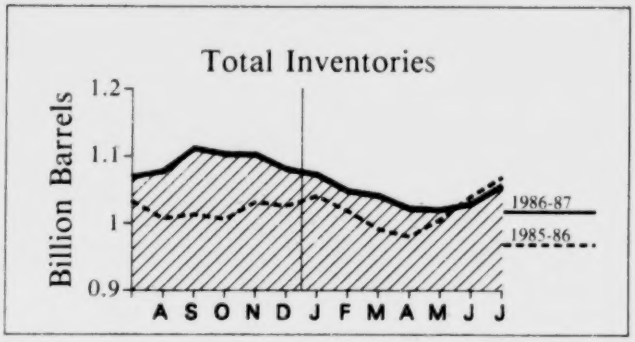
STOCKS BUILD MORE THAN SEASONALLY FOR THE MONTH. Total stocks rose 27 million barrels during July, twice the recent-year average for the month. About half the rise was accounted for by increases in crude oil and distillate stocks. Though crude stocks rose only 3 million barrels during the month, it was the first increase since March. Distillate stocks, in line with historical seasonal patterns, increased 11 million barrels in anticipation of the heating season still several months away.

Despite gasoline production near the highest levels in years and strong gasoline imports, high deliveries drew down stocks of that product slightly during the month. And even with July's greater-than-average increase, total inventories of crude and product ended the month 12 million barrels below last July's level and towards the lower end of the range of July stocks of the past several years.









1/ Total supply, i.e., production plus imports adjusted for net stock change is equal to total products supplied from primary storage. Total products supplied from primary storage less exports is equal to total domestic products supplied. Information contained in this report is derived from information published in the API Weekly Bulletin and is based on historical analysis of the industry. All data reflect the most current information available to the API and include all previously published revisions.

2/ Includes lease condensate.

3/ API data do not include crude oil imported for the Strategic Petroleum Reserve (SPR) nor crude oil stocks held in the SPR (according to the U.S. Department of Energy, the SPR held approximately 530 million barrels as of July 31, 1987).

ESTIMATED UNITED STATES PETROLEUM BALANCE

(Daily Average in Thousands of 42 Gallon Barrels)

Products Supplied/Supply From Primary Storage	JULY			YEAR-TO-DATE		
	1987[1]	1986[2]	% Change	1987[3R]	1986[2]	% Change
Products Supplied:						
Total motor gasoline	7,616	7,436	2.4	7,143	6,974	2.4
Finished leaded motor gasoline*	1,876	2,254	(16.8)	1,817	2,248	(19.2)
Finished unleaded motor gasoline*	5,740	5,182	10.8	5,326	4,726	12.7
Naphtha-jet	210	235	(10.6)	197	202	(2.5)
Kerosine-jet	1,099	1,091	0.7	1,129	1,072	5.3
Distillate fuel oil	2,725	2,592	5.1	2,964	2,955	0.3
Residual fuel oil	1,358	1,508	(9.9)	1,278	1,421	(10.1)
All other oils[4]	4,023	3,869	4.0	3,952	3,805	3.9
Reclassified[5]	- 318	- 423	(24.8)	- 276	- 308	(10.4)
Total domestic products supplied	16,713	16,308	2.5	16,387	16,121	1.7
Exports	759	685	10.8	800	765	4.6
Total products supplied	17,472	16,993	2.8	17,187	16,886	1.8
Supply:						
Domestic production:						
Crude oil[6]	8,204	8,660	(5.3)	8,343	8,899	(6.2)
Natural gas liquids	1,549	1,507	2.8	1,595	1,583	0.8
Other supply[7]	977	847	15.3	931	851	9.4
Total domestic supply	10,730	11,014	(2.6)	10,869	11,333	(4.1)
Imports:						
Crude oil, total	5,325[10/]	4,674[10/]	13.9	4,316[10/]	3,776[10/]	14.3
Canadian	617	562	9.8	587	556	5.6
Other	4,708	4,112	14.5	3,729	3,220	15.8
Products, total	2,300	2,216	3.8	1,888	1,985	(4.9)
Residual fuel oil	734	673	9.1	578	637	(9.3)
Other	1,566	1,543	1.5	1,310	1,348	(2.8)
Total imports	7,625	6,890	10.7	6,204	5,761	7.7
Total supply	18,355	17,904	2.5	17,073	17,094	(0.1)
Stock change, all oils	+ 883	+ 911	XXXX	- 114	+ 208	XXXX
Refinery Operations						
Input to crude oil distillation units	13,608	13,009	4.6	12,799	12,675	1.0
Operable capacity	15,692	15,475	1.4	15,651	15,475	1.1
Refinery utilization (%)[8]	86.7%	84.1%	3.1	81.8%	81.9%	(0.1)
Crude oil runs	13,451	12,917	4.1	12,675	12,565	0.9

Stocks (millions bbls.)	1987		1986[2]	% Change from . . .	
	July 31[9]	June 30[9]	July 31	Previous Month	Year Ago
Crude oil 10/	327.8	324.4r/	341.8	1.0	(4.1)
Unfinished oils	100.7	104.2	104.9	(3.4)	(4.0)
Total motor gasoline**	229.4	231.0r/	224.0	(0.7)	2.4
Finished leaded motor gasoline*	54.6	56.6	72.7	(3.5)	(24.9)
Finished unleaded motor gasoline*	135.6	135.7	117.2	(0.1)	15.7
Naphtha-jet	7.6	7.1	6.1	7.0	24.6
Kerosine-jet	40.1	38.0	42.5	5.5	(5.6)
Distillate fuel oil	114.5	103.8r/	118.9	10.3	(3.7)
Residual fuel oil	41.7	39.0r/	40.4	6.9	3.2
All other oils	195.1	182.0r/	190.7	7.2	2.3
Total all oils	1,056.9	1,029.5r/	1,069.3	2.7	(1.2)

1/ Based on API estimated data converted to a monthly basis.
2/ Source: U.S. Department of Energy.
3/ Source: January-May, U.S. Department of Energy, June-July, API.
4/ Includes crude losses.
5/ Beginning with January 1981, U.S. Department of Energy began using a new data collection system which encompasses a method to ascertain the amount of product reclassified during the production phase. So that there will be no double counting of these volumes, they are subtracted from total domestic products supplied.
6/ Includes lease condensate.
7/ Includes Unaccounted-for crude oil, Refinery input of other hydrocarbons, and Processing gain.
8/ Represents "Input to crude oil distillation units" as a percent of "Operable capacity."
9/ Derived by interpolating API weekly stocks data.
10/ Data do not include oil imported for the Strategic Petroleum Reserve (SPR) nor crude oil stocks held in the SPR.
R/ Revised.
* Included in motor gasoline.
** Includes finished leaded, finished unleaded, and motor gasoline blending components stocks.